

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C. 20554

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In the Matter of)

Preparation for International)
Telecommunication Union World)
Radiocommunication Conferences)

IC Docket No. 94-31

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

To: The Commission

COMMENTS OF STARSYS GLOBAL POSITIONING, INC.

STARSYS Global Positioning, Inc. ("STARSYS"), by its attorneys and pursuant to Sections 1.415 and 1.430 of the Commission's Rules, hereby comments on the Commission's Second Notice of Inquiry in the above-captioned proceeding, Preparation for International Telecommunication Union World Radiocommunication Conferences, FCC 95-36 (released January 31, 1995) ("Second NOI").

STARSYS, which filed comments in response to the Commission's first notice of inquiry in this proceeding,^{1/} and has been an active participant in the various preparatory fora that have been meeting domestically and internationally in advance of the 1995 World Radiocommunication Conference ("WRC-95"), is one of three initial-round applicants for authority to establish non-geostationary mobile satellite systems in the new Non-Voice, Non-Geostationary Mobile Satellite Service ("NVNG MSS"). One NVNG MSS system was licensed by the Commission late last year, and STARSYS expects that its application for a system license will be granted later this year.

^{1/} See Preparation for International Telecommunication Union World Radiocommunication Conferences, 9 FCC Rcd 2430 (1994) ("NOI").

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Spectrum was allocated for this service, which is also known internationally as the non-geostationary ("NGSO") MSS, for the first time at the 1992 World Administrative Radio Conference. In these Comments, STARSYS provides the Commission with its views on the preliminary allocation proposals that have been identified for the NGSO MSS in frequencies below 1 GHz for consideration and prosecution at WRC-95, and on the development of the agenda for future World Radiocommunication Conferences.

DISCUSSION

I. The Commission Should Pursue The Elimination Of Technical Constraints On The Use Of NGSO MSS Spectrum In The Frequency Bands Below 1 GHz.

In its comments on the NOI, STARSYS contended that the constraints imposed at WARC-92 on MSS use of the 148-149.9 MHz and 149.9-150.05 MHz bands by ITU Footnotes 608A and 608B serve no practical purpose, and should therefore be removed or appropriately conditioned.^{2/} In the Second NOI, the Commission notes that the Industry Advisory Committee ("IAC") it established to advise it on issues pertinent to WRC-95 had proposed that the PFD limit of Footnotes 608A "be eliminated, and replaced with an appropriate coordination triggering

^{2/} Footnotes 608A and 608B provide that mobile-satellite earth stations in each of the subject frequency bands "shall not produce power flux-density in excess of -150 dB(W/m²/4 kHz) outside national boundaries."

mechanism."^{3/} Because there are no terrestrial allocations in the 149.9-150.05 MHz band, and the PFD limit of Footnote 608B was devised to protect terrestrial services from harmful interference from MSS mobile earth terminal operations, the IAC had determined that the footnote is unnecessary and ripe for elimination.^{4/} Both of these proposals have been carried forward in the Commission's Second NOI.

STARSYS fully supports the Commission's proposals regarding Footnotes 608A and 608B, as reflected in its Preliminary Proposal No. 2/L-LEO.^{5/} The NGSO MSS is a new service that should not be subject to regulatory restrictions that have the potential to limit or even curtail user operations in the bands allocated to the service. Revision and removal of the PFD limits in the two footnotes will provide MSS operators with welcome flexibility without negatively affecting the sharing environment.

^{3/} Second NOI, FCC 95-36, slip op. at ¶ 14. The IAC recommended in its interim report that countries wishing to implement MSS systems be required to coordinate mobile earth terminal operations with administrations falling within a specified threshold distance of the implementing country's borders. Id.

^{4/} Id.

^{5/} STARSYS has no present opinion, however, on whether Footnote 608A, as proposed to be modified, should specifically reference the appropriate proposed Recommendation for coordination, or should specify the method itself.

II. The Commission Should Proceed With Its Proposal To Remove Encumbrances On NGSO MSS Operations In The 137-138 MHz Band.

In its Second NOI and the associated proposals, the Commission recites that the NGSO MSS has co-primary status with meteorological satellite operations in the 137.000-137.025 MHz and 137.175-138.825 MHz segments of the 137-138 MHz band, and secondary status everywhere else.^{6/} The Commission also notes that the National Oceanic and Atmospheric Administration ("NOAA") will require primary operations in the band only through the year 2006 (with operations continuing until 2010), although a recent congressional mandate that requires the combination of NOAA and Department of Defense polar orbiting MetSat programs may affect the NOAA-only time line.^{7/} In view of the forthcoming sunset of MetSat operations in the NGSO's principal downlink band at 137-138 MHz, the IAC recommended (and the Commission now agrees) that the United States propose a new footnote for inclusion in the International Table of Allocations in RR Article 8 that will provide for co-primary MetSat operations at 137.175-137.825 MHz -- with the Commission adding also the 137.000-137.025 MHz segment -- until the year 2006, and secondary operations in those segments from the year 2006 until the year 2010.^{8/}

^{6/} Second NOI, FCC 95-36, slip op. at ¶ 16.

^{7/} Id. at ¶ 16 & n.19.

^{8/} Id. at ¶ 17.

STARSYS supports the Commission's proposal. It also urges the Commission to work with NOAA and the Department of Defense to expedite the migration of the combined MetSat program to new frequency bands. It would be unfortunate if the 1 January 2006 and 1 January 2010 dates now included in brackets in proposed Footnote 599X were to slip. Because STARSYS is unaware of any current use of the 137-138 MHz band by stations in the Space Research (space-to-Earth) service, STARSYS also supports the proposal to suggest that the latter service be eliminated from the bands.^{9/}

III. The Commission Should Propose To Simplify The Radio Regulations Pertaining To The NGSO MSS By Calling For The Generification Of The Allocation At 149.9-150.05 MHz And The Elimination Of Footnote 608C.

The Commission invited comment on two suggestions that it states would be consistent with the ITU's trend toward simplification of the Radio Regulations. First, it endorsed the IAC's interim recommendation that the 149.9-150.05 MHz band, which was allocated at WARC-92 to the land mobile-satellite service, be redesignated as an MSS band. Also, the Commission notes the recommendation of the IAC that the need for Footnote 608C be reexamined in light of the techniques that have been

^{9/} Id. at ¶ 17, Preliminary Proposal No. 2/L-LEO.

identified since WARC-92 to facilitate sharing between NGSO MSS and terrestrial fixed and mobile services.^{10/}

STARSYS supports the Commission's determination to propose that the 149.9-150.05 MHz band be redesignated a generic MSS band. This will comport not only with the service offerings planned by NVNG MSS operators in this country, but will provide necessary flexibility to all parties interested in developing service offerings over these systems. The Commission also correctly notes that the proposal to make the MSS allocation generic comports with the move toward broad allocations.^{11/}

STARSYS strongly implores the Commission to seek the removal of Footnote 608C. This provision has the potential to impede the development of a global MSS service in the subject band, and is likely overly-prophylactic in view both of the progress on the development of sharing techniques that has emerged from Task Group 8/3 and the forthcoming refinement to Resolution 46.

^{10/} Second NOI, FCC 95-36, slip op. at 19 & n.21. In Footnote 608C, a number of countries took a reservation to the NGSO MSS allocation in the 148-149.9 MHz band to ensure that stations of the MSS do not cause harmful interference to or claim protection from fixed and mobile service operations in the same bands.

^{11/} Id. at ¶ 19.

IV. The Commission Should Pursue Refinement Of The Procedures Embodied In Resolution 46, Bearing In Mind The Specific Requirements Of The NGSO MSS In Frequencies Below 1 GHz.

The procedures and methodology of Resolution 46 are under study in a number of different fora and from a number of different standpoints. Exactly how the analyses should come out is a subject of much internal debate within the United States, and STARSYS is unable at this time even to offer a suggestion as to whether the resolution should remain a stand-alone provision or should be folded into the requirements of Article 11 of the Radio Regulations.

STARSYS does agree generally that the procedures of Resolution 46, as adopted at WARC-92, should be refined. This is one area where the proposals the United States is to make would benefit from some empirical data. To this extent, and with the explicit recognition that the specific proposals regarding modifications to Resolution 46 are still being developed in the IAC process (in which STARSYS is an active participant), STARSYS supports the Commission's proposal to seek modification of the provision as it is to be applied to NGSO MSS systems in bands below 1 GHz, and encourages the Commission to look to the final report of the IAC (particularly the relevant sections of the reports of IWG-1 and IWG-2 for final guidance on this subject).

V. The Commission Must Pursue Additional Spectrum Below 1 GHz For Both Initial-Round And Follow-On NGSO MSS Systems.

There is absolutely no question whatsoever that NGSO MSS systems in frequency bands below 1 GHz now require access to more spectrum than is currently available for the service. Indeed, based on projections of the likely market for NGSO MSS services, the amount of spectrum currently allocated to the service is less than 25 percent of the amount of spectrum that is to be required by the turn of the century.

In its Second NOI, the Commission identifies a number of candidate bands for the NGSO MSS below 1 GHz, and repeats the IAC's interim prioritization of those bands.^{12/} It also credits the projected requirements of 10 MHz of new NGSO MSS spectrum by the year 2000 (for a total of 13.45 MHz of primary or co-primary spectrum) and for an additional 13-20 MHz by the year 2010.^{13/}

STARSYS strongly urges the Commission to pursue as much additional spectrum for the NGSO MSS below 1 GHz as it can going into WRC-95. Much work will need to be done within the United States in the months preceding WRC-95 to finalize a proposal that is acceptable to government users of the spectrum most attractive for NGSO MSS use, and STARSYS believes that the Commission should bring whatever pressure needs to be brought to bear to facilitate a finding of co-frequency sharing and domestic approval of international allocation proposals.

^{12/} See Second NOI, FCC 95-36, slip op. at ¶¶ 57-58.

^{13/} Id. at ¶ 56.

The IAC correctly determined that from an objective technical standpoint, bands occupied by the fixed and/or mobile services -- whether government or non-government in current use -- are the most attractive candidates for NGSO MSS use. Instead of wasting energy on the pursuit of reasons not to designate government bands for use by commercial NGSO MSS systems, and instead of carping about the fact that the technical assessment the IAC undertook revealed no superb candidate bands that are in the non-government realm now, the government users should be encouraged to provide the information necessary to enable an objective determination of whether sharing is viable. When the analysis is complete, surviving bands should be advanced for allocation at WRC-95.^{14/}

In short, the WARC-92 allocations to the NGSO MSS below 1 GHz will be implemented successfully only because of the extraordinary efforts of STARSYS and the other initial-round applicants and the Commission in pursuing a spectrum assignment plan in the United States that maximizes the use of a very limited amount of spectrum. If the service is to have room to expand -- both in terms of expansion by the initial systems as their market presence grows and by entry of new systems -- more spectrum is required. The Commission must make the allocation of additional spectrum for the NGSO MSS below 1 GHz a top priority.

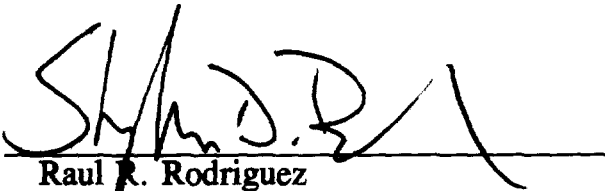
^{14/} STARSYS recognizes that even if all of the information required to perform these analyses were made available today, there still may not be enough time to complete the evaluations that will be required to support allocations at WRC-95. In this respect the Commission should pursue -- as a top priority item -- the inclusion of NGSO MSS below 1 GHz frequency allocations for the agenda of WRC-97. See Second NOI, FCC 95-36, slip op. at ¶¶ 95-99.

CONCLUSION

For the foregoing reasons, STARSYS supports the Commission's proposals for the NGSO MSS below 1 GHz at WRC-95, and urges the Commission to identify additional spectrum for allocation to this service at WRC-95, and at WRC-97 (as necessary).

Respectfully submitted,

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